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ABSTRACT

The results of a newly developed Haitian-Creole oral proficiency test are presented. The test is administered in Haitian-Creole to Creole-speaking and limited-speaking Haitian-origin children at two educational levels: grades kindergarten through 3 and grades 4-6. The test is designed to assess the child's language proficiency in three linguistic areas: semantic, phonological, and syntactic. Five parts of the test consist of discrimination of minimal sound differences from word pairs, vocabulary, phonemes, sentence comprehension, and oral production. Results of the test administration in four Miami, Florida, samples are presented. The test was moderately easy for kindergarten pupils, easy for students in grades 1-2, and too easy for grades 5-6 students. The coefficients of reliability ranged from .88 to .97, which indicate that the test is internally consistent. Performance on the test is correlated highly with the Haitian teachers' ratings of pupils' ability to speak their native language. However, teachers' nominations of pupils with respect to academic standing were not related to performance on the proficiency test. The intercorrelation of part and total scores on the test generally were high and positive, suggesting the influence of one trait such as oral language skill. However, the few zero correlations that appear suggest that there may be two or more independent variables. (SW)

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THE VALIDITY AND RELIABILITY OF AN HAITIAN-CREOLE ORAL PROFICIENCY TEST: A REPORT TO THE SCHOOL BOARD OF DADE COUNTY, FLORIDA

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January, 1983

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Introduction

During 1982, Mr. Yves J. Joseph developed the Haitian-Creole Oral Proficiency Test, the first of its kind for assessing the linguistic capabilities of Haitian origin children. The test was developed for the Southeast Curricula Development Center, Title VII, Dade County Public Schools, with the assistance of the Center for Urban Minorities Education (CUME) and the South Atlantic Bilingual Education Service Center (SABES).

As increasing numbers of Haitian children entered the Dade County Public Schools during the past few years, the need for an instrument to establish the children's language proficiency level became apparent. In response to that need this test was constructed to measure Haitian children's oral proficiency in their native language at two educational levels, K-3 and 4-6.

The HC-Test

The name of the test is the Haitian Creole Oral Proficiency Test. The language of the test is Haitian Creole. The test is administered in this language to Creole-speaking and limited speaking Haitian origin children. (For the sake of convenience in this report the title will be shortened to "The HC-Test).

The HC-Test has two levels: I for grades K-3 and II for grades 4-6. Each level has two forms, I and II. The test is accompanied by a tape and is administered individually. Two voices (male and female) are recorded on the tape. One gives instructions and the other provides content.

The test is designed to assess the child's command of the language in three linguistic areas: the semantic, the phonological, and the syntactic. The test has five parts. The first part, Minimal Pairs, consists of 25 items that test the child's ability to perceive minimal sound differences from word pairs. Upon hearing a word pair, the child has to say if they are the same ("menm") or not the same ("pa menm").

The second part, Vocabulary, also contains 25 items. The items consist of pictures presented one-at-a-time to the child. As each picture is presented, the child must identify it correctly in Haitian.

The third part, Phonemes, consists of 20 items. This part tests the child's capacity to produce fluently the basic sounds within meaningful sequences of words. The child is asked to repeat each word or each sentence that he or she hears.

Sentence Comprehension is the fourth part. Its ten items assess the child's ability to understand oral Creole sentences. Each time the child hears a statement, he or she identifies in a set of three pictures the one that corresponds most appropriately to the statement.

The fifth part of the HC-Test, Oral Production, tests the child's ability to receive information orally and his or her capacity to produce that information clearly. Given information orally with pictures as cues, the child is asked to retell the story, using the picture-cues.

Initial Development- The first form of the HC-Test consisted of 115 items with 35 in Part I, 30 in Part II, 30 in Part III, and 20 in Part IV. From May to December, 1982, the preliminary form was administered at two levels to students at schools in Haiti and in Miami. The schools, dates, grade levels, and numbers of pupils tested are as follows:

1. June 14, 1982 - Edison Park Elementary, Kindergarten, 8
2. June 14, 1982 - " " " , Grades 2-3, 17
3. June 15,16, 1982- Morningside " , " " , 10
4. May, Nov., Dec.,1982- Schools in Haiti, Primary level, 18
5. August, November, 1982- " " " , Level II, 22

In this preliminary tryout, the procedures for scoring were being developed. Part I was not scored in the Miami samples, and the scoring of other parts was not consistent. To assure samples broadly representative of Haitian pupils, testing was conducted in 12 or more schools in that country. At Level I, ages ranged from six to ten with the average, eight. At Level II, ages ranged from eight to 12 with the average being 11 years.

First Revision- During the summer, the preliminary form was reduced to 80 items and this form was administered to three samples at Level I and one at Level II, all in Miami. In November, 1982, Level I was administered to 15 kindergarten pupils at Primary School "C". In August, Level I had been given to 23 pupils in grades 1-2, ten at Martin Luther King Elementary and 13 at Primary "C". Also in August, Level II had been given to 14 pupils in grades 5-6 at Miami Edison Middle School.

Haitian Results- The preliminary form of the HC-Test was administered as Level I to 18 pupils, ages 6-10, average age, 8. The mean score was 108 and the standard deviation was 3.95. With the mean nearing the ceiling (115) of the test and with little variation in the scores, it was obvious that the test was very easy for the Haitians. This trend was even more pronounced for Level II. The scores were so uniformly high as to provide little to analyze.

The 115 item preliminary form, pared down to 80 items and given to the four Miami samples, provides the data for analysis in this report.

Item Analysis

Item analysis involves determining the difficulty of individual items and the power of an item to discriminate between high and low scoring individuals on the test. The difficulty index may be represented as the proportion of individuals getting the item wrong or the proportion getting it right. In this report, the proportion getting the item wrong will be used as the definition of "difficulty".

TABLE 1

ITEM DIFFICULTY INDICES OF LEVEL I OF THE DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

Item	Kg. "C"	Gr. "C"	1-2 MLK	Item	Kg. "C"	Gr. "C"	1-2 MLK	Item	Kg. "C"	Gr. "C"	1-2 MLK
1.	27	15	30	28.	13	0	10	55.	7	0	0
2.	13	8	10	29.	33	24	20	56.	20	8	40
3.	66	15	30	30.	27	0	20	57.	0	0	10
4.	60	8	30	31.	27	8	0	58.	47	0	10
5.	73	8	30	32.	27	0	0	59.	0	0	0
6.	13	8	10	33.	27	38	30	60.	27	15	10
7.	73	8	20	34.	66	46	40	61.	13	0	0
8.	27	8	10	35.	7	0	10	62.	33	24	30
9.	53	24	30	36.	40	24	20	63.	0	0	0
10.	66	8	20	37.	13	0	10	64.	13	15	10
11.	66	15	60	38.	60	38	20	65.	13	8	0
12.	73	15	30	39.	20	0	10	66.	40	15	20
13.	47	24	40	40.	20	8	10	67.	13	0	20
14.	20	8	20	41.	73	75	70	68.	33	38	60
15.	60	8	40	42.	13	0	10	69.	0	0	10
16.	53	8	30	43.	33	0	10	70.	27	15	10
17.	33	0	40	44.	27	15	10	71.	0	8	0
18.	73	0	40	45.	40	24	40	72.	20	15	20
19.	66	15	30	46.	40	46	50	73.	13	0	10
20.	66	24	50	47.	66	62	60	74.	7	15	10
21.	53	8	40	48.	80	85	80	75.	40	24	40
22.	47	15	30	49.	60	31	50	76.	7	0	10
23.	47	24	40	50.	73	15	20	77.	7	0	20
24.	20	8	10	51.	0	0	0	78.	20	0	40
25.	27	8	0	52.	33	24	50	79.	13	0	10
26.	20	0	0	53.	0	0	0	80.	40	8	30
27.	33	0	0	54.	33	54	50				

Item difficulty is defined as the proportion of each group getting the item wrong. For the sake of convenience, decimal points are omitted.

TABLE 2

ITEM DIFFICULTY INDICES OF LEVEL II OF THE
DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

Item	Miami Edison	Item	Miami Edison	Item	Miami Edison
1.	0	28.	7	55.	0
2.	0	29.	0	56.	0
3.	14	30.	21	57.	0
4.	0	31.	0	58.	0
5.	21	32.	14	59.	7
6.	7	33.	0	60.	14
7.	29	34.	14	61.	7
8.	21	35.	7	62.	0
9.	7	36.	29	63.	0
10.	7	37.	21	64.	0
11.	7	38.	0	65.	0
12.	21	39.	7	66.	0
13.	7	40.	0	67.	0
14.	21	41.	36	68.	0
15.	0	42.	14	69.	0
16.	0	43.	14	70.	0
17.	7	44.	29	71.	0
18.	0	45.	0	72.	7
19.	0	46.	0	73.	7
20.	0	47.	7	74.	0
21.	0	48.	21	75.	7
22.	14	49.	0	76.	7
23.	0	50.	0	77.	7
24.	0	51.	0	78.	0
25.	7	52.	0	79.	7
26.	0	53.	0	80.	7
27.	7	54.	0		

Decimal points are omitted.

TABLE 3

ITEM DISCRIMINATION INDICES OF LEVEL I OF THE
DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

Item	Kg. "C"	Gr. "C"	1-2 MLK	Item	Kg. "C"	Gr. "C"	1-2 MLK	Item	Kg. "C"	Gr. "C"	1-2 MLK
1.	50	50	33	28.	50	0	33	55.	25	0	0
2.	50	25	33	29.	100	0	66	56.	50	25	100
3.	50	0	66	30.	75	0	66	57.	0	0	33
4.	75	0	0	31.	75	25	0	58.	50	0	33
5.	75	0	66	32.	50	0	0	59.	0	0	0
6.	50	25	33	33.	0	25	66	60.	75	25	33
7.	50	25	33	34.	75	50	33	61.	50	0	0
8.	25	25	33	35.	25	0	66	62.	25	0	66
9.	25	50	66	36.	50	50	66	63.	0	0	0
10.	75	25	66	37.	50	0	66	64.	50	50	33
11.	75	50	33	38.	50	50	0	65.	0	25	0
12.	75	25	66	39.	75	0	66	66.	75	50	66
13.	50	0	66	40.	50	25	66	67.	25	0	66
14.	75	25	33	41.	50	25	33	68.	25	25	66
15.	75	0	100	42.	50	0	33	69.	0	0	33
16.	75	25	100	43.	100	0	33	70.	75	50	33
17.	50	0	100	44.	100	25	33	71.	0	0	0
18.	50	0	100	45.	50	0	66	72.	50	0	0
19.	75	50	66	46.	50	75	100	73.	50	0	33
20.	50	50	66	47.	50	50	66	74.	25	0	0
21.	75	25	66	48.	25	0	33	75.	-25	50	100
22.	50	25	100	49.	75	25	66	76.	25	0	33
23.	100	50	100	50.	50	50	-33	77.	25	0	66
24.	50	25	33	51.	0	0	0	78.	0	0	66
25.	50	25	0	52.	50	50	100	79.	50	0	33
26.	50	0	0	53.	0	0	0	80.	50	25	66
27.	75	0	0	54.	75	75	100				

The index of discrimination is the power of an item to discriminate between high and low scoring students on the test. The index is calculated by first counting the correct responses of the upper 27 percent and the lower 27 percent of students and then converting the difference to a proportion. The difference between the two counts becomes the numerator and the number of cases in the 27 percent becomes the denominator. Decimal points are omitted.

(INSERT TABLE 1 HERE)

Item Difficulty- Table 1 lists the proportions of kindergarten and grade 1 and 2 groups getting each item wrong. Decimal points are omitted. The items, of course, range in difficulty from very easy to very hard . As a convention, we shall define "hard" or "difficult" items as those missed by two-thirds or more of the group tested. Conversely, "easy" items will be those answered correctly by two-thirds or more of the group.

The kindergarten pupils at Primary "C" found 14 out of the 80 items "hard". These items (17.5 percent) are numbers 3,5,7,10,11,12,18, 19,20,34,41,47,48, and 50. However, these children experienced 61 percent (49/80) of the items as "easy". Items answered correctly by 90 percent or more of the group were:#35,51,53,55,57,59,63,69,71,74,76, and 77; 80 to 89 percent of the group were #2,6,14,24,26,28,37,39,40,42,56,61,64,65, 67,72,73,78, and 79, and those items passed by 66 to 79 percent of the group were #1,8,17,25,27,29,30,31,32,33,43,44,52,54,60,62,68, and 70.

Grades 1 and 2 at the two schools found the test easy. Only two items, #41 and 48, were missed by two-thirds or more of the group. At Primary "C" two-thirds or more of the pupils correctly answered 89 percent of the items, and at Martin Luther King, 87.5 percent of the items were correctly answered by two-thirds or more of the pupils at that school.

(INSERT TABLE 2 HERE)

The Haitian pupils in Grades 5-6 at Miami Edison Middle School found Level II of the HC-Test to be easy. The only difficult item was #41. Table 2 shows that 36 percent of the pupils missed it.

(INSERT TABLE 3 HERE)

Table 3 shows the index of discrimination in the kindergarten and Martin Luther King samples to be high. Ebel (1972, p. 399) considers items having an index of .40 and higher to be "very good items." He shows that the larger the indices of discrimination, the larger the score variance, and the larger the score variance for a given number of items, the higher the reliability of the scores.

This certainly seems confirmed by the data. The mean index of discrimination for the kindergarten pupils is .487 and their Kuder-Richardson 20 reliability is .97 (see Table 5). The mean index of discrimination for the Martin Luther King pupils is .46 and their KR20 reliability is also .97. The mean index of discrimination for the pupils in Primary "C" grades 1-2 is .19 and the reliability of their sample of scores is somewhat lower, .88 .

TABLE 4

ITEM DISCRIMINATION INDICES OF LEVEL II OF THE DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

Item	Miami Edison	Item	Miami Edison	Item	Miami Edison
1.	0	28.	25	55.	0
2.	0	29.	0	56.	0
3.	50	30.	50	57.	0
4.	0	31.	0	58.	0
5.	50	32.	50	59.	25
6.	25	33.	0	60.	25
7.	50	34.	25	61.	25
8.	75	35.	25	62.	0
9.	25	36.	0	63.	0
10.	25	37.	50	64.	0
11.	0	38.	0	65.	0
12.	50	39.	25	66.	0
13.	25	40.	0	67.	0
14.	75	41.	75	68.	0
15.	0	42.	50	69.	0
16.	0	43.	50	70.	0
17.	25	44.	50	71.	0
18.	0	45.	0	72.	0
19.	0	46.	0	73.	25
20.	0	47.	25	74.	0
21.	0	48.	0	75.	25
22.	25	49.	0	76.	25
23.	0	50.	0	77.	25
24.	0	51.	0	78.	0
25.	25	52.	0	79.	0
26.	0	53.	0	80.	0
27.	25	54.	0		

Decimal points are omitted.

TABLE 5

ESTIMATES OF THE RELIABILITY OF THE DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

School	Grades	N	Level	No. of Items	r*	$\bar{X}$	S.D.
Primary "C"	K	15	I	80	.97	53.13	17.11
Primary "C"	1-2	13	I	80	.88	69.00	7.40
M.L. King	1-2	10	I	80	.97	61.70	17.15
Primary "C" and M.L. King	1-2	23	I	80	.95	65.83	12.80
Edison Middle	5-6	14	II	80	.88	74.79	5.83
Haitian Schools (initial form of the test)	1-3	18	I	115	.60	108.28	3.95

*Kuder-Richardson formula 20

(INSERT TABLE 4 HERE)

Contrasting the performance of the upper 27 percent versus the lower 27 percent on Level II of the HC-Test, Table 4 shows that over half of the items (47/80) have no discriminating power at all. Despite this the mean item discrimination index is .15, and like the Primary "C" grades 1-2, the reliability of the sample of Level II scores is .88, as shown in Table 5.

(INSERT TABLE 5 HERE)

Reliability

Generally,"reliability" means the consistency with which a set of test scores measures whatever it measures. As Ebel notes (ibid.,p.410) "reliability is not a property of a test by itself but rather of a test when applied to a particular group of examinees. The more appropriate a test is to the level of abilities in the group, the higher the reliability of the scores it will yield."

Reliability is expressed as a correlation coefficient, which provides a relative, rather than absolute, measure of agreement between the pairs of scores for the same persons. To obtain the coefficient, it is necessary to employ two or more independent measures from equivalent tests of the same trait or characteristic for each member of the group. Among the methods for obtaining the independent measures are test-retest, equivalent forms, split halves, and the Kuder-Richardson formulas.

As essentially the mean of all possible split-half reliability estimates, the Kuder-Richardson 20 formula was chosen as a more stable measure of the coefficient. Table 5 lists the K-R 20 r's, means, and standard deviations for the preliminary form of 115 items and for Levels I and II of the 80 item version.

At Level I the means range from 53 to 69. The groups having high score variance (Primary"C" kindergarten, 17.11 and M.L. King grades 1-2, 17.15) also show high coefficients of reliability, both .97.

The groups having lower variances (Primary "C" grades 1-2 and Edison Middle, grades 5-6, Level II) also have lower reliability coefficients. It might be noted that the preliminary, 115-item form of the test produced a coefficient of .60, lowest of all.

TABLE 6

SPLIT-HALF RELIABILITY ESTIMATES OF TEACHERS' RATINGS OF PUPILS' ABILITY TO SPEAK HAITIAN-CREOLE

School	Grades	N	Level	No. of Items	rho	Adjusted for 24 items
Primary "C"	1-2	9	I	12	.84*	.91*
M.L. King	1-2	9	I	12	.37	.54
Edison Middle	5-6	14	II	12	.97*	.98*

*Significant at the .01 level. The Spearman-Brown prophecy formula was used to adjust the correlation coefficients for a test of 24 items.

(INSERT TABLE 6 HERE)

Validity

The term "validity" has been defined as "the accuracy with which a set of test scores measures what it ought to measure,"(Ebel, ibid.,p.435). One objective of this report is to present evidence of the validity of the HC-Test. There are various kinds of validity, i.e. content, construct, concurrent, predictive, curricular, factorial, etc. The kind of validity that seemed appropriate for this investigation is concurrent validity, meaning the relation of test scores to a contemporary criterion of performance on the variable being measured by the test. That variable is proficiency or competence in speaking the Haitian Creole language.

The problem faced early in planning this study was the identification or creation of an outside, concurrent criterion of proficiency in speaking Haitian-Creole. None was available as a test or standardized procedure. However, an excellent source of information albeit subjective lay in the Haitian teachers and/or curriculum specialists who observed and taught the children every day. Dr. Sylvia Rothfarb, Director of Project Basics and a consultant to the Southeast Curricula Development Center, conceived the idea of a rating scale for use by teachers of the Haitian children in Miami.

The teachers were asked to make two sets of ratings. The first was of "the actual performance" of the pupil in either the upper or lower half of the class. The academic areas were Haitian Language Arts including Vocabulary, Pronounciation, Grammatical Structures, and Comprehension. Math, science and social studies taught outside Haitian Language Arts completed the first set of ratings.

The second set of ratings focussed on the pupil's oral proficiency in Haitian-Creole. The one-page form presented 24 behaviors, each an aspect of oral language, i.e. "recognizes and uses verbs", "repeats sounds accurately", etc. The teacher was asked to rate the student on his or her current performance in Haitian-Creole on a five-point scale from "5. Mastery of behavior (able to perform behavior without errors)" to "1. Unable to perform behavior."

Ratings of pupils' language proficiency and academic performance were obtained at grades 1-2 in Primary "C" and Martin Luther King and at grades 5-6 at Miami Edison Middle School. The 24-item scale was split into odd and even items and rank-difference correlations were calculated between the halves of the test for the three groups. Table 6 shows that the split-half reliability of the ratings was high at Primary "C" and Edison (significant at the .01 level) but not at Martin Luther King, even when adjusted for a test having twice the number of items, i.e. 24.

TABLE 7

ESTIMATES OF VALIDITY BEING CORRELATIONS BETWEEN TEACHERS' RATINGS OF STUDENTS' ORAL SKILLS AND PERFORMANCE OF STUDENTS ON ORAL TEST

School	Grades	N	Test Level	rho
M.L. King	1-2	10	I	.49
Primary "C"	1-2	13	I	.69*
Edison Middle	5-6	14	II	.72*

*Level of significance: .01, two-tailed test; Ferguson, 1966, p.220.

TABLE 8

MEANS AND STANDARD DEVIATIONS OF SCHOOLS ON PARTS I, II, III, AND IV OF THE DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

Level I

School	Part I $\bar{X}$	Part I S	Part II $\bar{X}$	Part II S	Part III $\bar{X}$	Part III S	Part IV $\bar{X}$	Part IV S	Total $\bar{X}$	Total S
Primary "C" (Kg.,N=15)	12.73	7.54	15.60	6.91	16.47	3.98	8.33	1.40	53.13	17.11
Primary "C" (Gr.1-2, N=13)	22.15	3.26	19.23	3.58	17.00	3.65	8.46	2.40	69.00	7.40
M.L. King (Gr. 1-2, N=10)	17.80	7.22	19.00	4.71	16.70	4.14	8.10	2.64	61.70	17.15

Level II

Miami Edison Middle (Gr. 5-6, N=14)	23.07	2.92	22.50	2.84	19.71	.83	9.50	1.16	74.79	5.83

TABLE 9

INTERCORRELATIONS OF TOTAL AND SUBTEST SCORES ON THE DADE COUNTY HAITIAN-CREOLE ORAL PROFICIENCY TEST

Primary "C", Kindergarten, (N=15)

	I	II	III	IV	Total
I		.54*	.48	.62*	.84***
II			.84***	.78***	.92***
III				.69**	.84***
IV					.83***

Primary "C", Grades 1-2, (N=13)

	I	II	III	IV	Total
I		.27	.22	-.05	.86***
II			.70**	.63*	.53
III				.85***	.31
IV					.04

Martin Luther King, Grades 1-2, (N=10)

	I	II	III	IV	Total
I		.76**	.81***	.73**	.94***
II			.77**	.70**	.89***
III				.86***	.92***
IV					.86***

Miami Edison Middle, Grades 5-6, (N=14)

	I	II	III	IV	Total
I		.52	.30	.65*	.93***
II			-.03	.20	.78***
III				-.16	.24
IV					.60*

Levels of Confidence: * .05; **, .01; ***, .001.

(INSERT TABLE 7 HERE)

Having determined that the teachers' ratings were reliable at Levels I and II, the next step was to ascertain the validity of the HC-Test. The task was to find what association, if any, existed between the teachers' ratings of pupils' oral language proficiency and the students' performance on the oral proficiency test.

Since teacher ratings are essentially ranks rather than ratio or interval units of measurement, Spearman's Rank-Difference correlation coefficients were calculated. Table 7 shows a statistically significant (P. less than .01) association between teachers' ratings of students' ability to speak Haitian-Creole and students' scores on the oral proficiency test. The significant coefficients were .69 for the 13 pupils in grades 1-2 at Primary "C" and .72 for the 14 fifth and sixth grade students atMiami Edison Middle School.

(INSERT TABLE 8 HERE)

Table 8 shows the means and standard deviations of the four Miami samples on the four parts of the test, I, II, III, and IV and on the total score of the four parts. The scores of the three primary groups on Parts III and IV of Level I are similar yet the means of the three groups on Part I, Minimal Sound Pairs, vary from 12.73 for kindergarten pupils to 22.15 for grades 1-2 at Primary "C".

Scores on Part II, Vocabulary, seem to be a function of maturation since the means of the two grade 1-2 groups are nearly identical, whereas the mean of the kindergarten pupils is several points lower as expected.

As noted previously, the test was probably too easy for the Level II pupils at Miami Edison Middle School. This seems especially true for Parts III and IV because the means of the group (19.71 and 9.50) are scraping the ceilings (20 and 10) of the two parts. The high means and the low standard deviations on the four parts of the test indicate that the test did little to reveal differences in oral language proficiency among the Haitian-Creole fifth and sixth graders.

(INSERT TABLE 9 HERE)

Table 9 shows Pearson product-moment coefficients of correlation between pairs of subtest scores and between the scores on each subtest and the total test (Parts I,II,III, and IV) for the four Miami groups on the HC-Test. The intercorrelation matrices of the Primary "C" kindergarten group and Martin Luther King grades 1-2 contain coefficients highly and positively correlated, suggesting the operation of a general trait such as oral language proficiency. However, the absence of correlation between the scores of Primary "C" grades 1-2 on Parts I and IV and on Part IV and the total test, and between Parts II and III and Parts III and IV of Miami Edison Middle School, grades 5-6,implies the operation of some influence independent of a general linguistic factor. The origin of such an influence might be the small samples and the testing situation itself, i.e. fatigue or learning rate interacting with the testing. Or the absence of correlation (the -.16 is interpreted as zero correlation) might be due to the fact that different cognitive modalities are called for in responding to the different subtests.

Performance on Part I, minimal sound differences, requires the child to perceive and discriminate between sounds. Performance on Part III is also auditory, but of a slightly different sort. Here memory for sounds is required. Having heard a tape-recorded sequence of words, the child must "produce fluently the basic sounds within words and sentences," (Joseph, Yves J., HC-Test Manual, p. 1).

Parts II and IV contain a visual component as a major stimulus. In doing Part II, the child is shown a picture and must name the object in Haitian Creole. Part IV is visual and auditory. Each time the child hears a statement, he or she must identify in a set of three pictures the one that corresponds best to the statement.

(INSERT TABLE 10 HERE)

Part V, The Story- Part V of the HC-Test requires the child to listen to a story and then retell it with the aid of pictures. The examiner of the Primary "C" kindergarten children recorded the number of words that each child uttered to tell the story; judged each child on a pass-fail basis, i.e. "Did he retell the story or not?", and in administering Part II, Vocabulary, wrote down the English words that some of the children offered when the pictures of common objects were shown to them.

Table 10 shows the correlation between the children's ability to retell the story as judged by the examiner and the scores of the children on Parts I-IV of the test, the total score, the number of words in retelling the story, and the number of English words in response to Part II, Vocabulary. High correlations are with Part III, Phonemes; the total score; Part II, Vocabulary; Part IV, Sentence Comprehension, and with the number of English words, a highly negative relationship.

TABLE 10

POINT BISERIAL CORRELATIONS BETWEEN TEACHERS' ASSESSMENT OF KINDERGARTEN PUPILS' ABILITY TO RETELL STORY (PART V) AND PUPILS' SCORES ON OTHER PARTS OF THE HAITIAN-CREOLE ORAL PROFICIENCY TEST (N=15)

Test	$\bar{X}_t$	S	$\bar{X}_p$	$\bar{X}_q$	p	q	r_{pbi}	t	Sign. Level
I-Minimal Pairs	12.73	7.54	14.82	7.00	11/15	4/15	.46	1.87	.10
II-Vocabulary	15.60	6.91	18.64	7.25	11/15	4/15	.73	3.85	.01
III-Phonemes	16.47	3.98	18.36	11.25	11/15	4/15	.79	4.65	.001
IV-Sentence Comp.	8.33	1.40	8.91	6.75	11/15	4/15	.68	3.34	.01
Total	53.13	17.11	60.73	32.25	11/15	4/15	.74	3.97	.01
V- The Story (No. of words)	35.73	16.05	41.55	19.75	11/15	4/15	.60	2.70	.02
II-English (No. of English words)	7.53	7.61	4.09	17.00	.73	.27	-.75	4.09	.01

TABLE 11

INTERCORRELATIONS BETWEEN SUBTESTS OF THE HAITIAN-CREOLE ORAL PROFICIENCY TEST BY KINDERGARTEN PUPILS (N=15)

	Part I Min/Pairs	Part II Vocab.	Part III Phonemes	Part IV Sent/Com.	Total I-IV	Part V No. of words	II-Eng. No. wo.d. in English
I		.54*	.48	.62*	.84***	.37	-.54*
II			.84***	.78***	.92***	.58*	-.96***
III				.69**	.84***	.68**	-.22
IV					.83***	.73**	-.82***
Total						.60	-.90***
V							-.63*

Levels of Confidence: *, P. less than .05
**, P. less than .01
***, P. less than .001

TABLE 12

POINT BISERIAL CORRELATIONS BETWEEN TEACHERS' ASSESSMENT OF PRIMARY PUPILS' ABILITY TO RETELL STORY (PART V) AND PUPILS' SCORES ON OTHER PARTS OF THE ORAL PROFICIENCY TEST

(Primary "C" and M.L. King, Grades 1-2, N=23)

Test	$\bar{X}_t$	S	$\bar{X}_p$	$\bar{X}_q$	p	q	r_{pbi}	t	Sign. Level
I-Minimal Pairs	20.26	5.66	20.63	20.07	.35	.65	.05	.22	N.S.
II-Vocabulary	19.13	4.01	21.50	17.87	.35	.65	.43	2.18	.05
III-Phonemes	16.87	3.78	17.88	16.33	.35	.65	.20	.94	N.S.
IV-Sentence Comp.	8.30	2.46	9.00	7.93	.35	.65	.21	.98	N.S.
Total Score	65.83	12.80	70.75	63.20	.35	.65	.28	1.34	.20

TABLE 13

TEACHERS' RATINGS OF PUPILS' ORAL LANGUAGE AND ACADEMIC STANDING AND PUPILS' PERFORMANCE ON THE HAITIAN-CREOLE TEST OF ORAL PROFICIENCY

Miami Edison Middle School, Level II

Pupils	Haitian Language Arts				Math	Sci.	Soc. St.	Rating	Total Oral P.	Part V
	Voc.	Pr.	Gr.	Com.						
1.	U	U	U	U	-	-	-	93	79	A
2.	U	U	U	U	-	-	-	100	78	E
3.	U	U	U	U	-	-	-	109	79	A
4.	U	U	U	U	-	-	-	90	70	A
5.	U	U	U	U	-	-	-	99	78	E
6.	U	U	U	U	-	-	-	75	79	A
7.	L	L	L	L	-	-	-	62	69	G
8.	U	U	U	U	-	-	-	80	77	G
9.	U	U	U	U	-	-	-	63	75	A
10.	U	U	U	U	-	-	-	114	80	A
11.	U	L	U	U	-	-	-	72	60	K
12.	U	U	U	U	-	-	-	113	78	A
13.	U	U	U	U	-	-	-	94	77	D
14.	L	L	L	U	-	-	-	61	68	H

Martin Luther King, Level I

1.	U	-	-	-	L	-	L	69	72	E
2.	U	-	-	-	L	-	L	46	67	G
3.	U	-	-	-	L	-	U	63	45	B
4.	U	-	-	-	U	-	L	57	74	A
5.	U	-	-	-	U	-	L	49	51	H
6.	U	-	-	-	U	L	-	70	80	A
7.	L	-	-	-	L	-	L	42	23	I
8.	U	-	-	-	U	-	U	41	69	A
9.	U	-	-	-	L	-	U	46	69	J
10.	-	-	-	-	-	-	-	-	67	E

TABLE 13 (Cont.)

Primary "C" , Level I

1.	U	U	L	U	-	-	-	61	72	E
2.	U	U	U	U	U	L	U	63	74	D
3.	U	L	L	L	-	-	-	57	65	E
4.	U	U	L	U	-	-	-	47	68	E
5.	U	-	-	-	L	-	U	49	46	C
6.	U	L	L	L	-	-	-	43	64	E
7.	U	-	-	-	L	-	L	53	67	E
8.	U	-	-	-	U	-	U	54	77	A
9.	U	-	-	-	U	-	L	49	-	C
10.	-	-	-	-	-	-	-	-	75	A
11.	-	-	-	-	-	-	-	-	77	A
12.	-	-	-	-	-	-	-	-	72	E
13.	-	-	-	-	-	-	-	-	70	E
14.	-	-	-	-	-	-	-	-	67	F

Edison Park Elementary, Grade 3, Level I

1.	U	U	U	U	-	U	U	93	78	A
2.	U	U	U	U	-	U	U	111	76	A
3.	L	L	L	L	-	-	-	90	60	B
4.	L	L	L	L	-	L	L	101	76	A

Interpretation of Letter Code for Part V

A. Has good command of basic sounds in Creole; vocabulary normal for age/grade; fluent; retells story in sequence.

B. Can't discriminate between vowel and consonant sounds in Creole, but can tell story in sequence.

C. Has problems discriminating vowel and consonant sounds; can identify most situations and vocabulary items, but unable to retell story.

D. Right sequence, but unable to retell story.

E. Wrong sequence; can't retell story.

F. Knows Creole vowel and consonant sounds; vocabulary adequate for age/grade, but not able to retell story.

G. Is fluent in Creole, but can't retell story; wrong sequence.

H. Due to limited vocabulary in Creole, can't retell story, though understands instructions in Creole.

I. Can't discriminate between vowel and consonant sounds; deficient in vocabulary; can't retell story and confuses sequence.

J. Can't distinguish between vowel and consonant sounds; vocabulary adequate; can tell story, but not in proper sequence.

K. Discrimination of vowels and consonants poor; vocabulary satisfactory for age; can retell story in sequence.

(INSERT TABLE 11 HERE)

Table 11 shows Pearson product-moment correlation coefficients between the various parts of the HC-Test and the number of words used in retelling the story (Part V) and the number of words in English offered in response to Part II, Vocabulary. As would be expected, the number of words in English has a consistently high negative correlation with the HC-Test, particularly with the total score and the vocabulary score.

(INSERT TABLE 12 HERE)

The only score rendered by the examiners of the Primary "C" and Martin Luther King grades 1-2 to Part V, the Story, was the pass-fail judgement. As was shown in Table 10, Table 12 lists point biserial correlations between the examiners' assessment of pupils' story telling ability and the pupils' scores on Parts I-IV and the total. The only statistically significant correlation (P. less than .05) is with Part II, Vocabulary for the combined group of 23 children.

(INSERT TABLE 13 HERE)

Academic Standing and Validity- In an effort to secure an additional indication of validity, the Miami teachers were asked to rank their students academically. Kindergarten pupils were exempt from this. The ranking consisted of nominating a student for the upper half of his or her class or the lower half of the class in Haitian language arts(Vocabulary, Pronounciation, Grammatical Structures, and Comprehension) and in mathematics, science and social studies as offered in the elementary schools of Dade County. The purpose of this was to obtain an outside criterion, which, when correlated with students' scores on the HC-Test would be an index of validity. The underlying assumption is a positive association between oral proficiency in Haitian Creole and academic standing in Haitian language arts and other school subjects.

Table 13 shows the ranks ("U" for upper and "L" for lower half) assigned by the teachers, the total rating score by teachers of each student's performance in Haitian Creole, each student's total score for Parts I-IV on the HC-Test, and the teachers' assessment of each child's ability to speak Haitian Creole as required in Part V, the Story. The letters , "A" through "K" are used to symbolize the individualized assessments, strengths and weaknesses of each child's pattern of speech, summarized by the teachers. The purpose in doing this was to show the complexity of the diagnostic process with the hope that some

TABLE 14

RELATIONSHIPS BETWEEN PUPILS' ACADEMIC STANDING AND PERFORMANCE ON THE HC-TEST IN GRADES 1-2 AT M.L. KING

Variables	N	Correlation Coefficient	Type
Standing in math vs. the teacher's rating of oral proficiency	9	.04	Point Biserial
Standing in math vs. total score on the HC-Test	9	.04	" "
Standing in social studies vs. the teacher's rating of oral proficiency	8	.22	" "
Standing in social studies vs. the total score on the HC-Test	8	.10	" "
Standing in math vs. telling the story, Part V	9	.63	Phi Coefficient
Standing in social studies vs. telling the story, Part V	8	.60	

None of these correlations are statistically significant.

common elements such as vocabulary, consonant-vowel discrimination, fluency or syntactic richness could be identified, described in behavioral terms, and rationalized in some routine scoring procedure.(One way of helping to make this process more objective might be to provide the teachers with a short check-off list of behaviors that constitute "telling a story." Each behavior could be rated along some continuum, i.e. presence or absence, mastery, degree to which, extent of, frequency of, quality of, etc, on a three-point or five-point scale, perhaps in the format of the oral proficiency rating sheets that the teachers used.)

(INSERT TABLE 14 HERE)

Table 14 summarizes an effort to show a relationship between academic standing and performance on the HC-Test. Point biserial r's were computed between standing in math and social studies and teacher's rating of oral proficiency and total score on the HC-Test, respectively. None of these were statistically significant.

Phi coefficients were calculated between two dichotomous variables, academic standing (upper half vs. lower half) and telling the story, Part V, treated as satisfactory or not satisfactory. Converted to chi-squares of 3.57 and 2.88, the relationships were not established. (Downie and Heath, Fourth Edition, 1974, p. 230).

Summary

The HC-Test was an easy test for the Haitian pupils. It was moderately easy for kindergarten pupils, easy for grades 1-2, and too easy for grades 5-6. An analysis of responses by kindergarten pupils shows that the easy items outnumber the difficult items by a ratio of 3 to 1. At grades 1-2, two-thirds or more pupils answered over 87 percent of the items, and found only two items difficult. At grades 5-6, only item #41 was difficult. Ninty-eight percent of the items were missed by less than 30 percent of the pupils, and all of the pupils got at least half of the items correct (41/80).

Discriminating Power- The test items discriminate very well between high and low scoring pupils in the Primary "C" kindergarten and in grades 1-2 at Martin Luther King, but about half (39/80) of the items do not discriminate at all in grades 1-2 at Primary "C". Similarly, at grades 5-6 over half of the items (47/80) show no discriminating power at all.

Reliability- The coefficients of reliability ranging from .88 to .97 indicate that the HC-Test is internally highly consistent.

Validity- Relying on the Haitian teachers as reliable and valid judges of pupils' oral proficiency in Creole, the HC-Test is valid. Performance on the test is correlated highly with the Haitian teachers' ratings of pupils' ability to speak their native language. However, teachers' nominations of pupils with respect to academic standing are not related to performance on the HC-Test.

The intercorrelation of part and total scores on the HC-Test generally are high and positive, suggesting the influence of one trait such as oral language skill. However, the few zero correlations that appear raise the question of two or more independent variables at work.

The accuracy in measuring various aspects of oral language can be increased by eliminating items that have no or low discriminating power. The test can probably be shortened by eliminating non-discriminating items. Since reliability is partly determined by the number of items in a test, what effect shortening the test would have is not known at this time.

Administering a more sharply discriminating test to larger randomly selected samples of pupils may make it possible to identify two or more independent variables useful in planning instruction for the children.

A factor analysis may disclose the presence of two or more independent variables. Multiple regression analysis may show the contributions of different variables toward some outcome such as learning. And discriminant analysis, operating like regression analysis (group membership as the dependent variable), may allow prediction of a group whose characteristics match or come very close to those of an individual learner.